

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OHIO

WAGO Verwaltungsgesellschaft mbH &	:	
WAGO KONTAKTECHNIK GmbH,	:	
	:	CASE NO. 1:11-cv-756
Plaintiffs,	:	
	:	
vs.	:	OPINION AND ORDER
	:	
Rockwell Automation, Inc.,	:	
	:	
Defendant.	:	
	:	

JAMES S. GWIN, UNITED STATES DISTRICT JUDGE:

Plaintiff WAGO Verwaltungsgesellschaft mbH, sues defendant Rockwell Automation, Inc., claiming that several of Rockwell's input/output system products infringe United States Patent No. 5,716,241 ("the '241 patent"). With this opinion, the Court construes eleven terms contained in the '241 patent.¹

I. Background

With this patent, Plaintiff WAGO teaches input/output devices for a data bus, configured as series terminals. These devices are used in conjunction with special processor systems to control various items, such as fans or sensors, often in a factory setting.² Prior devices connected to each other, as well as to central data and power sources, using hard wires between every device. WAGO's

¹/The parties' initial claim construction chart suggested a dispute over the terms "electronic means which connects bus parts to a serial data bus line and a power supply line," "electronic means which connects parts to a serial data bus line," and "mountable electronic means." [Doc. 74, at 7.] The parties have informed the Court that they now agree as to the construction of those terms. [Doc. 82.]

²/[241 patent; col. 1; ll. 5-10.](#)

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invention allowed for individual devices to be inserted onto a support rail without needing to connect any wires. Rather, the devices could easily slide in and out of the data bus and connect to the device next to it using a series of interlocking means.³

The parties disagree regarding how certain terms within the patents should be interpreted and seek the Court's construction of eleven disputed terms. Against this backdrop, the Court construes the disputed terms.

II. Legal Standard

The construction of a patent, including terms of art used within its claims, is a question of law.⁴ In resolving a claim of patent infringement, a court first determines the meaning and scope of the patent.⁵

On March 15, 2013, this Court held a *Markman* claim construction hearing.⁶ The parties have also presented this court with a joint claim construction and pre-hearing statement,⁷ as well as pre- and post-*Markman* hearing briefs on claim construction.⁸

When interpreting an asserted claim, the Court first looks to the intrinsic evidence of record, i.e., the patent itself, most specifically, the patent claims, the specification and, if in evidence, the prosecution history.⁹ The intrinsic evidence gives the most significant guidance regarding the interpretation of disputed claim language.¹⁰

³*Id.*

⁴See [*Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 383-91 \(1996\)](#).

⁵*Id.* at 390.

⁶Doc. [87](#).

⁷Doc. [74](#).

⁸Docs. [77](#), [78](#), [88](#), & [90](#).

⁹See [*Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 \(Fed. Cir. 1995\)](#), aff'd, [517 U.S. 370 \(1996\)](#).

¹⁰[*Vitronics Corp. v. Conceptronic, Inc.* 90 F.3d 1576, 1582 \(Fed. Cir. 1996\)](#).

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In [*Phillips v. AWH Corp.*, 415 F.3d 1303 \(Fed. Cir. 2005\)](#), the Federal Circuit reiterated the standards used to interpret patent claims. Among these, “the ‘bedrock principle’ of patent law [is] that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’”¹¹ Thus, “the claims are ‘of primary importance’ in the effort to ascertain precisely what it is that is patented.”¹²

The claims, however, should not be read in isolation but “must be read in view of the specification, of which they are a part.”¹³ Thus, after considering the claim language, the court must next look to the rest of the specification.¹⁴ The specification is “always highly relevant to the claim construction analysis” and “is the single best guide to the meaning of a disputed term.”¹⁵ And [a]ssigning such a limited role to the specification [] is inconsistent with our rulings that the specification is ‘the single best guide to the meaning of a disputed term,’ and that the specification ‘acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication.’¹⁶

More centrally, the terms of a claim “are generally given their ordinary and customary meaning. . . . that the term[s] would have to a person of ordinary skill in the art in question at the time of the invention”¹⁷ Courts thus interpret claims through the eyes of a person having

^{11/}[415 F.3d at 1312](#) (quoting [*Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 \(Fed. Cir. 2004\)](#)).

^{12/}[Id.](#) (quoting [*Merrill v. Yeomans*, 94 U.S. 568, 570 \(1876\)](#)); see also [*Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1248 \(Fed. Cir. 1998\)](#) (“The claims define the scope of the right to exclude; the claim construction inquiry, therefore, begins and ends in all cases with the actual words of the claim.”).

^{13/}[Phillips, 415 F.3d at 1315](#).

^{14/}[Vitronics Corp., 90 F.3d at 1582](#).

^{15/}[Phillips, 415 F.3d at 1315](#) (internal citation omitted).

^{16/}[Id. at 1320-21](#) (quoting [*Vitronics*, 90 F.3d at 1582](#)); see also [*ICU Med., Inc. v. Alaris Med. Sys., Inc.*, 558 F.3d 1368, 1374 \(Fed. Cir. 2009\)](#) (“[N]ot only is the written description helpful in construing claim terms, but it is also appropriate to rely heavily on the written description for guidance as to the meaning of the claims.”) (internal citations and quotations omitted); [*Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 \(Fed. Cir. 1985\)](#) (“The specification is, thus, the primary basis for construing the claims.”).

^{17/}[Phillips, 415 F.3d at 1312-13](#).

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ordinary skill in the art or field of the invention. That person “is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning and usage in the field.”¹⁸

This Court may also consider other claims in the patent, including both asserted and unasserted claims.¹⁹ The usage of a term in one claim may shed light on the meaning of the same term in other claims. The claims “are part of ‘a fully integrated written instrument,’ consisting principally of a specification that concludes with the claims. For that reason, claims ‘must be read in view of the specification of which they are a part.’”²⁰

If the use of the ordinary or accustomed meaning does not cause the claim to become meaningless, courts will typically find the ordinary or accustomed meaning to be the meaning that should be used.²¹

Claim terms should be construed, when possible, “in a manner that renders the patent internally consistent.”²² When interpreting a claim term that is exceedingly broad, the Court can look to the specifications to better find how a person of ordinary skill in the art would interpret the claim term.²³

III. Discussion

The parties dispute the meanings of eleven terms as used in the ‘241 patent. The Court

^{18/}[*Id.* at 1313.](#)

^{19/}[*Id.* at 1314.](#)

^{20/}[*Id.* at 1315](#) (quoting [Markman](#), 52 F.3d at 978-79).

^{21/}[W.E. Hall Co., Inc. v. Atlanta Corrugating, LLC](#), 370 F.3d 1343, 1350 (Fed Cir. 2004) (noting that “[w]e indulge a ‘heavy presumption’ that the claim terms carry their ordinary and customary meaning”); [SuperGuide Corp. v. DirecTV Enter.](#), 358 F.3d 870, 874 (Fed. Cir. 2004).

^{22/}[Budde v. Harley-Davidson, Inc.](#), 250 F.3d 1369, 1379-80 (Fed. Cir. 2001).

^{23/}[Decisioning.com, Inc. v. Federated Dept. Stores, Inc.](#), 527 F.3d 1300, 1308 (Fed. Cir. 2008).

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construes them in turn.²⁴ For clarity, this Court will construe the claims in the order in which they were presented during the *Markman* hearing.²⁵

A. “Individual terminal” and “individual bus terminal”

The term “individual terminal” appears in Claims 1 and 4 of the ‘241 patent, and the term “individual bus terminal” appears in Claim 4 of the ‘241 patent. During the *Markman* hearing, the parties agreed that the terms “individual terminal” and “individual bus terminal” are synonymous.²⁶

In Claim 1 of the ‘241 patent, the term is used to describe the effect of mounting multiple individual terminals together on a support rail so as to create a terminal block: “configuring the device with other such devices as series terminals, each having electronic means, each device being located on the support rail either singly so as to define individual terminals, or in a group so as to define a terminal block having bus terminals.”²⁷

WAGO says that an “individual terminal” is a single terminal input/output device that has electronic means “that connect a single bus part.”²⁸ Rockwell’s proposed definition says that the individual terminal has its own electronic means and connects “only a single actuator, sensor or other appliance.”²⁹ Thus, the parties disagree as to whether the individual terminal is limited to connecting to only one bus part, i.e., external device.

During the *Markman* hearing, it became clear that the parties agree that each individual

^{24/}[Markman, 517 U.S. at 391.](#)

^{25/}[Doc. 81.](#)

^{26/}[Doc. 87,](#) at 18. *See also* doc. [74](#), at 5.

^{27/}[‘241 patent, at col.5, ll. 1-5.](#)

^{28/}[Doc. 74,](#) at 5.

^{29/}[Id.](#)

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terminal could connect to only one external device.³⁰ The point of disagreement centers around the use of the word “bus part,” which Rockwell says is an unknown term to a person having ordinary skill in the art. WAGO says that the term “bus part” is meant to cover anything capable of being attached to an individual terminal, and that its incorporation in the patent results from the original German patent.³¹ Rockwell agrees that the term does not limit “the types of devices which can be attached.”³² The parties are effectively saying the same thing, and this portion of the dispute is simply semantical.

Accordingly, the Court finds that the term “individual terminal” is an input/output device that has electronic means and electrical connection points for wires that connect only a single actuator, sensor, or other appliance capable of being controlled by an I/O module.

B. “Terminal block”

Independent claim 1 of the ‘241 patent describes a configuration of the device “with other such devices as series terminals, each having said electronic means, each device being located on the support rail either singly or as to define individual terminals, or in a group so as to define a terminal block having bus terminals.”³³ Independent claim 4 describes the terminal in a similar fashion.³⁴ WAGO says that “terminal block” means “a multi-terminal I/O device having electronic means and electrical connection points for wires that connect more than one bus part.”³⁵

Rockwell says that “terminal block” means “two, three or more individual terminals grouped

^{30/}Doc. [87](#), at 18, 26.

^{31/}*Id.* at 25.

^{32/}Doc. [88](#), at 3.

^{33/}[‘241 patent; col. 5; ll. 1-5.](#)

^{34/}[‘241 patent; col. 6; ll. 6-10.](#)

^{35/}Doc. [74](#), at 5.

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together to form a multi-terminal device, wherein each one of the individual terminals of the device has its own electronic means and the device having electrical connection points for wires that connect more than one actuator, sensor or other appliance.”³⁶ The parties thus disagree as to whether a terminal block can be one device with multiple terminal rows and only one electronic means (WAGO’s preferred construction), or a series of individual terminals, each having its own electronic means (Rockwell’s).

Claim 1 of the ‘241 patent generally claims a device, positioned on a rail, comprising a series of terminal points and electronic means allowing the device to interact with similar other devices on a support rail.³⁷ The claim further states that the device can be located singly, as an individual terminal, or in a group, as a terminal block. WAGO thus says that the claim teaches a device having its own electronic means, as opposed to an individual terminal having its own electronic means—the device in question could be either an individual terminal or a terminal block.³⁸ In support, WAGO says that a person having ordinary skill in the art would understand that a single electronic means, such as a circuit board, could control multiple external devices. Rockwell’s construction, requiring multiple electronic means for multiple external devices, would render this difficult. Therefore, the terminal block should be construed to allow for a series of terminal points, that can control multiple external devices, but with only one electronic means.

Rockwell says, however, that the ‘241 patent’s prosecution history reveals that WAGO sought to distinguish prior art that is a “very big individual bus terminal.”³⁹ In responding to a

³⁶/Id.

³⁷/[241 patent; cols. 4-5.](#)

³⁸/Doc. [77](#), at 13.

³⁹/Doc. [78](#), at 7.

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suggestion that its teaching was obvious or anticipate, WAGO sought to distinguish the prior art, specifically Patent No. 4,956,747 (“the Beer patent”) by noting that prior inventions did not “disclose a device which is configured in the form of a rail mounted terminal block, i.e., in the form of a small disc which is rail-mounted next to each other . . .”⁴⁰ Rockwell also says that the patent’s background and summary describes an invention that emphasizes modularity. If terminal block was interpreted as allowing a device that has only one electronic means, connected to a number of different external devices, the structure would defeat such modularity. Indeed, the patent’s specifications indicate that a bus terminal is created “when two, three or more of the new individual bus terminals are combined to form a bus terminal block, which combination may be effected by the manufacturer or the user . . .”⁴¹

Finally, Rockwell says that statements made during the prosecution of the parent patent in Germany reveal the invention intended a modular structure. During the German patent’s prosecution, WAGO sought to differentiate prior art by noting that the modularity of prior inventions was “minimal” because those I/O blocks “are respectively configured for a larger number of bus participants.”⁴² Statements made during prosecution of a foreign patent are relevant to determining the scope of the claims of the derivative American patent.⁴³

This Court agrees with Rockwell that the specifications of the ‘241 patent, along with the American and German prosecution histories, reveal that the term “terminal block” refers to a series of individual terminals, each with its own electronic means. To say otherwise would defeat the

⁴⁰/Doc. [79](#), Ex. B.

⁴¹/[‘241 patent; col. 2; ll. 50-53.](#)

⁴²/Doc. [79](#), Ex. C, at 7.

⁴³/[Glaxo Group Ltd. v. Ranbaxy Pharmaceuticals, Inc.](#), 262 F.3d 1333, 1337 (Fed. Cir. 2001) (drawing inferences from a British patent).

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import of the invention, for it greatly diminishes the level of modularity available to the new device. Therefore the Court construes the term “terminal block” as multiple individual terminals grouped together to form a multi-terminal device, wherein each individual terminal within the device has its own electronic means, and connects to one external device.

C. “Bus contacts automatically contacting one another in the series direction”

Claim 4 of the ‘241 patent teaches a device that has “bus contacts automatically contacting one another in the series direction of the bus terminals when the bus terminals are located on the support rail”⁴⁴ Such a structure allows the bus terminals located on the support rail to be “connected to transversing data bus lines and power supply lines” so as to form a terminal bus.⁴⁵ Effectively, this structure allows the passage of power and data between the individual terminals, but is distinct from the power bridging members, which provides the passage of load power to the external devices.

WAGO asks this Court to construe the term as “contact structures connected to a data bus line of a bus terminal adapted to automatically contact a contact structure connected to a data bus of an adjacently positioned bus terminal.”⁴⁶ Rockwell’s preferred construction of the term is “electrical conductors located on a bus terminal’s lateral face such that their conducting surfaces press against mating conductor surfaces on an adjacent bus terminal in a direction that is parallel to the support rail.”⁴⁷ The parties agree that the only area of dispute is the understanding of the term

⁴⁴/ [‘241 patent; col. 6; ll. 19-24.](#)

⁴⁵/ [Id. at ll. 22-24.](#)

⁴⁶/Doc. [74](#), at 6.

⁴⁷/ [Id.](#)

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“bus contact.”⁴⁸

WAGO says that “bus contacts” are “merely contract [sic] structures for bus information [and] as such they are connected to a bus line.”⁴⁹ Rockwell says that WAGO’s interpretation reinterprets the term “bus contacts” to mean anything other than a permanent contact. Rockwell further points out that WAGO’s construction ignores the directional language of the claim.

Rockwell correctly explains that WAGO’s proposed construction improperly broadens the scope of “bus contact” to include knife and fork contacts. The specifications make clear that the terminal bus can be kept in contact on the support rail by placing end brackets on each end.⁵⁰ This is necessary because the contact pressure of the bus contacts could cause some type of displacement between the individual terminals.⁵¹ But, the benefit of a knife and fork contact is that they connect in a transverse direction, ensuring high contact pressure and a lack of displacement.⁵² Therefore a knife and fork contact cannot be a bus contact, and WAGO’s proposed construction cannot be adopted.

This Court therefore construes the term “bus contacts automatically contacting one another in the series direction” as “conducting surface contacts located on an individual terminal’s lateral face such that their conducting surfaces press against mating conducting surfaces on an adjacent individual terminal.” The construction need not provide additional directional instructions, as the phrases “press against” and “lateral surfaces” provide sufficient guidance.

^{48/}See doc. [78](#), at 10; doc. [77](#), at 18.

^{49/}Doc. [74](#), at 6.

^{50/}[241 patent](#); col. 2; ll. 58-62.

^{51/}[Id.](#)

^{52/}[Id.](#) at col. 3; ll. 28-34.

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D. “Pressure contact in a lateral face thereof which extend towards an adjacent terminal of an adjacently positioned device, the contact automatically contacting the device to an adjacent device in the series direction of the bus terminals”

Independent claim 1 teaches a structure that presses against an adjacent terminal to connect data and power supply lines to form a bus terminal. But, the specifications specifically equate pressure contacts with bus contacts.⁵³ Rockwell asks this Court to apply the same construction to “bus contacts” as to “pressure contacts” due to the specification’s language. WAGO responds by noting that the Federal Circuit has cautioned against “importing limitations from the specification into the claims . . .”⁵⁴

But this is not an issue of importing limitations from the specification; rather, this Court is charged with construing a term as it would be understood by a person having ordinary skill in the art. The Federal Circuit has made clear that its “cases recognize that the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography governs.”⁵⁵ Because the patent’s specification defines a pressure contact as a bus contact, this Court applies the construction of bus contact, articulated above, to the instant term.

E. “Power bridging member”

Independent claim 1 contains the term “power bridging member,” while independent claim 4 contains the term “power bridge member.” The parties agree that the terms should be given a common definition.⁵⁶ In claim 1, the patent teaches

^{53/}[*Id. at col. 2; ll. 22-23*](#) (“in that each individual bus terminal and each terminal block have pressure contacts (called bus contacts hereinafter) in their lateral faces . . .”).

^{54/}[*Phillips, 415 F.3d at 1323.*](#)

^{55/}[*Id. at 1316.*](#)

^{56/}Doc. [77](#), at 25.

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at least one power bridging member for providing power to the parts communicated with the terminal points of the bus terminals, said power bridging member being fixedly disposed on the lateral face of the bus terminal and the terminal block, and engaging automatically with another power bridging member of an adjacent device when the bus terminals are mounted on the support rail.⁵⁷

Similarly, in claim 4, the patent teaches “power bridge members for providing power to the parts communicating with the terminal points of the bus terminals . . .”⁵⁸

WAGO’s preferred broad construction of the term “power bridging member” is “one or more structures that carries load power that can be used to power bus parts.” Rockwell, meanwhile, says that the term is in means-plus-function form, because the term discloses the function of providing load power to the terminal points of the claim. Thus, because a person skill in the art would not understand the term to define a structure, Rockwell says that this Court should consider the term written in means-plus-function form.

A claim’s failure to use the word “means” causes a rebuttable presumption that the term is not written in means-plus-function form.⁵⁹ To rebut the presumption, this Court must find that intrinsic or extrinsic evidence demonstrates that the claims recites “sufficiently definite structure to avoid the ambit of § 112.”⁶⁰ Thus, a claim is not written in means-plus-function form if the claim describes “sufficient structure, material, or acts within the claim itself to perform entirely the recited function . . .”⁶¹

This Court agrees with Rockwell that the term is written in means-plus-function form.

^{57/}[241 patent; col. 5; ll. 18-24.](#)

^{58/}[Id. at col. 6, ll. 25-28.](#)

^{59/}[Personalized Media Comms. v. Int’l Trad Com’n, 161 F.3d 696, 703-04 \(Fed. Cir. 1998\).](#)

^{60/}[Id.](#)

^{61/}[Sage Prods. v. Devon Indus., Inc., 126 F.3d 1420, 1427-28 \(Fed. Cir. 1997\).](#)

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WAGO produces no evidence demonstrating a person having ordinary skill in the art would understand what a “power bridging member” or a “power bridge member” structure is. And, WAGO’s expert’s deposition transcript reveals that there is insufficient specificity attached to the term.⁶² The less strained reading of “power bridging member,” is that the claim term refers to the means of transferring load power across various structures to the external devices.

Therefore this Court construes “power bridging member” and “power bridge member” as functional terms, and identifies the function as “providing electrical load power to power external devices connected to the individual terminal or adjacent, connected terminals.” The Court identifies the relevant structure as the knife-like contact and fork-like contact construed below.⁶³

F. “Knife-like contact”

Dependent claim 2 and independent claim 4 of the ‘241 patent use the term “knife-like contact” to describe one of the structures associated with the power bridging member. In claim 2, and also in claim 4, the knife-like contact is described as engaging a “resilient fork-like contact” “in the transverse direction when the bus terminals are mounted on the support rail.”⁶⁴ WAGO’s preferred construction of the term is the same as the term itself—“knife-like contact.”⁶⁵ Rockwell’s preferred construction of the term is “a straight, rigid electrical connection component.”⁶⁶

Rockwell says that the language of the claim is insufficient to instruct a person having

^{62/}See doc. [79-5](#), at 51.

^{63/}WAGO is correct that such a reading violates the canon of claim differentiation. Claim differentiation, however, is a presumption, and not a rigid rule. *Autogiro Co. v. United States*, 181 Ct. Cl. 55 (1967). As the Federal Circuit has made clear, “[a] means-plus-function limitation is not made open-ended by the presence of another claim specifically claiming the disclosed structure which underlies the means clause or an equivalent of that structure.” *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1538 (Fed. Cir. 1991).

^{64/}[241 patent](#); col. 5; ll. 25-29.

^{65/}Doc. [74](#), at 6.

^{66/}*Id.*

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ordinary skill in the art. It points out that the patent's embodiments all show a component that is straight and rigid, thereby making their proposed definition the more precise one. But, the Federal Circuit has repeatedly cautioned against limiting a claim's scope to the patent's specified embodiments. *See, e.g., Nazomi Comms. v. ARM Holdings, PLC*, 403 F.3d 1364, 1369 (Fed. Cir. 2005) (claims may embrace "different subject matter than is illustrated in the specific embodiments in the specification"). WAGO's expert says that "knife-like contact" is well known to persons having ordinary skill in the art,⁶⁷ while Rockwell's expert says that such persons would understand "knife-like contact" to be Rockwell's proposed construction.⁶⁸ But, Rockwell's expert also demonstrated a familiarity with the phrase "knife and fork contacts."⁶⁹

The specifications provide that "the knife-like contact travels transversely between the two U-shaped legs of the resilient fork-like contact."⁷⁰ Doing so ensures "high contact pressure between" the contacts.⁷¹ Reading the specifications together with the claim language reveals a straight contact is not required, but that a rigid one is. A slightly bent prong could still allow for insertion into the U-shaped legs while creating high contact pressure. But, a pliable or flaccid prong would neither allow insertion into the fork-like contact nor create the requisite contact pressure. Therefore, the Court construes the term "knife-like contact" as a rigid electrical connection component.

G. "Bar-like flat rail"

In dependent claim 3, the patent explains that the power bridging member forms "the end-

^{67/}Doc. [75](#), at 22.

^{68/}Doc. [74-2](#).

^{69/}Doc. [77-3](#), at 2 (Q: "[W]ould he consider spring contacts, knife and fork contacts, and other type of contacts to be an obvious variance?" A: "Yes.").

^{70/}['241 patent; col. 3; ll. 25-29](#).

^{71/}[Id. at ll. 30](#).

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pieces of a bar-like flat rail which extends internally through the individual bus terminals and the bus terminal blocks.”⁷² This means that the knife-like contact and the fork-like contact are the opposite ends of the same piece that extends throughout the individual terminal, allowing for uninterrupted transmission of power. As the individual terminals are stacked, the individual bar-like flat rails latch onto one another. The parties ask the Court to construe the term “bar-like flat rail.”

WAGO says the term “bar-like flat rail” should be interpreted as “a flat bar-like structure.”⁷³ In contrast, Rockwell construes the term as “a straight, unbent bar-like electrical conductor.” The specifications describe that the bar-like flat rail allows for “a particularly advantageous embodiment of the invention” because the rail allows for there to be “no bridging between the individual bus terminals of a bus terminal block.”

A person having ordinary skill in the art would understand that “flat” is a planar description, whereas “straight” and “unbent” are not. Rather, “straight” is a linear descriptor and “unbent” is a multi-dimensional one. A piece of metal, for example, could be flat, but could still have angles within it. While “unbent” could have a planar application, it could also have a linear one, and thus be unnecessarily confusing. There is no reason that the bar within the device need be straight or unbent, as it could be crooked and bent, yet still be flat. Therefore the Court construes the term “bar-like flat rail” as “a flat bar-like electrical conductor.”

H. “Resilient fork-like contact”

Dependent claim 2 and independent claim 4 describe a “resilient fork-like contact” that connects to the knife-like contact to create a power-transferring mechanism across the bar-like flat

^{72/}[Id. at col. 5; ll. 31-34.](#)

^{73/}Doc. [74](#), at 6.

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rail.⁷⁴ WAGO does not ask for a construction that differs from the term itself. Rockwell's preferred construction is "an electrical connection component consisting of two opposing, springy contact points configured to apply pressure against opposite sides of a knife-like contact."⁷⁵

The specifications provide additional insight into the structure:

The power bridging members each comprise a knife-like contact and a resilient fork-like contact, such contacts being provided alternately on the lateral faces of the bus terminals and engaging in one another in the transverse direction when the bus terminals are mounted on the support rail, i.e. the knife-like contact travels transversely *between the two U-shaped legs of the resilient-fork like contact.*⁷⁶

This structuring ensures high contact pressure between the two pieces. As with the term "knife-like contact," each party's expert states that their preferred construction is known to a person having skill in the art, though, as before, Rockwell's expert evinces a familiarity with knife and fork contacts.⁷⁷

A person having ordinary skill in the art would understand that the proposed structure must wrap around the inserting rigid structure in a transverse position, and it must do so while allowing for contact pressure between them. If the structure were static, or not springy, such pressure would be unavailable. Further, a fork-like contact with multiple prongs would violate the specification requiring the intersection in a transverse position. This Court therefore agrees with the majority of Rockwell's proposed construction, though finds that the latter clause is redundant in light of the specifications. The Court construes "resilient fork-like contact" as "an electrical connection component consisting of two opposing, springy contact points."

⁷⁴['241 patent; col. 5; ll. 25-27. *Id.* at col. 6; 32-34.](#)

⁷⁵[Doc. 74, at 6.](#)

⁷⁶['241 patent; col. 3; ll. 22-28 \(emphasis added\).](#)

⁷⁷[Doc. 77-3, at 2 \(Q: "\[W\]ould he consider spring contacts, knife and fork contacts, and other type of contacts to be an obvious variance?" A: "Yes."\).](#)

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I. “Configuring the device with other such devices as series terminals”

Independent claims 1 and 4 of the ‘241 patent include the terms “configuring the device with other such devices as series terminals,” and “configuring the device as series terminals,” respectively. Defendant Rockwell previously moved for judgment on the pleadings, claiming that these terms are method elements. Thus, Rockwell said, claims 1 and 4 impermissibly mixed apparatus claims and method elements. Judge Boyko denied that motion, though not before saying that it “does not find an expansion of the record necessary, either as a matter of law, or to construe the meaning of ‘configuring the device’ as it appears in the ‘241 patent.”⁷⁸ Judge Boyko reasoned “that the use of the gerund phrase ‘configuring the device’ in the ‘241 Patent is permissible functional language. It speaks to the modularity of the apparatus—a hardware characteristic—rather than an act performed by a person.”⁷⁹

WAGO’s preferred construction of this term is “each bus terminal is configured such that a series data bus connection is automatically established when the bus terminal is connected to an adjacent bus terminal located on a support rail.”⁸⁰ Rockwell’s preferred construction is “mounting an I/O device adjacent to another I/O device in a straight line along a support rail.”⁸¹ The difference between the constructions, as explained during the *Markman* hearing, is that Rockwell’s construction requires the device to be located on a support rail *adjacent to another device*, such that a competitor could not infringe upon claim 1 “without actually mounting the I/O device next to another device.”⁸²

⁷⁸/Doc. [47](#), at 9.

⁷⁹/*Id.* at 13.

⁸⁰/Doc. [74](#), at 5.

⁸¹/*Id.*

⁸²/Doc. [87](#), at 80.

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WAGO agrees that both constructions require mounting the device on a support rail, but instead says that there does not need to be more than one device on the rail.⁸³

Rockwell's construction seeks to relitigate an issue already decided by Judge Boyko. Judge Boyko's decision was not steeped in the deferential standard of a Rule 12 motion, but was instead a legal conclusion that the word "configuring" was related to a hardware characteristic as opposed to a method. But even if Judge Boyko had not already decided the issue, the language of Claim 1 suggests that the patented device is adapted to configure to other such devices, not that the device must be configured as multiple individual terminals on a support rail. Rockwell's construction also does violence to the first clause of Claim 1, "[a]n input/output device for a data bus, said device being located on a support rail . . .".⁸⁴ Its construction—requiring more than one device—would render the claim internally inconsistent.

This Court therefore accepts WAGO's construction that the terms "configuring the device with other such devices as series terminals," and "configuring the device as series terminals," mean "each bus terminal is configured such that a series data bus connection is automatically established when the bus terminal is connected to an adjacent bus terminal located on a support rail."

J. "Engaging automatically with another power bridging member of an adjacent device"

Independent claim 1 teaches that the power bridging member is "engaging automatically with another power bridging member of an adjacent device when the bus terminals are mounted on the support rail."⁸⁵ WAGO suggests a construction as "adapted to engage automatically with another

⁸³/_{Id.} at 81 ("It needs to be adapted or configured to be on the rail, but you don't have to have two devices.").

⁸⁴/241 patent; col. 4; ll. 60.

⁸⁵/_{Id.}; col. 5; ll. 19-24.

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power bridging member of an adjacent device.”⁸⁶ Rockwell’s construction is “power bridging members making electrical contact by mounting the claimed I/O device adjacent to another claimed I/O device.”⁸⁷

Rockwell says that the use of the word “engaging” is much like the use of the word “configuring,” and that the terms both require active steps. But, as with “configuring,” the words “engaging automatically with” is more properly read as “a hardware characteristic—rather than an act performed by a person.”⁸⁸ Indeed, the words in this portion of the claim do not lend themselves to allowing an act performed by a person, in part because the act is done “automatically.” A person having skill in the art would understand that the power bridging member, when placed next to a corresponding device, would be able to begin immediately sharing data with no additional steps taken by a user.

Rockwell’s construction seeks to insert impermissibly a method step in an apparatus claim. The Court adopts WAGO’s construction. Therefore the term “engaging automatically with another power bridging member of an adjacent device” is construed as “adapted to engage automatically with another power bridging member of an adjacent device.”

K. “Data bus line and power supply line being incorporated in the bus terminals and being slipped therethrough”

Independent claims 1 and 4 both teach data and power lines and that “said data bus line and power supply line being incorporated in the bus terminals and being slipped therethrough.”⁸⁹ WAGO

⁸⁶/Doc. [74](#), at 6.

⁸⁷/*Id.*

⁸⁸/Doc. [47](#).

⁸⁹/[‘241 patent; col. 5; ll. 6-8](#). The wording in claim 4 is slightly different, though the parties agree that one construction should govern both. *See ‘241 patent; col. 6; ll. 12-14* (“data bus lines and power supply lines for the electronic means being incorporated in bus terminals and being slipped therethrough”) (differences underlined).

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proposes the construction “data on the data bus line and power on the power supply line are provided through the bus terminals to opposing sides of the bus terminals.” Rockwell proposes “the data bus line and power supply line pass through the bus terminals and each line connects to opposing sides of the bus terminals.”⁹⁰

WAGO says that its construction requires that data and power be provided to opposing sides of the bus terminals, while Rockwell’s requires that each line must connect to opposing sides of the bus terminals. Thus WAGO says that its construction does not require unbroken conduction paths for the data bus lines, but instead requires a pathway for data and power supply lines.⁹¹ Rockwell says that WAGO’s construction “disregards the structural element of the claim, which requires the lines to physically pass through the device, and instead focuses only on the result, which is the data and the power being provided to opposing sides of the bus terminal.”⁹²

Rockwell is correct that WAGO’s construction reads out of the claim the phrase “and being slipped therethrough,” and impermissibly expands the scope of the claim beyond its plain meaning. The specifications articulate that the data and power lines for the electronic means are both incorporated in the bus terminals *and* slipped therethrough.⁹³ During the *Markman* hearing, WAGO made clear that it agrees that the lines must be slipped through, but takes issue with the requirement of “unbrokenness.”⁹⁴

On the issue of whether the data and power lines must be unbroken, Rockwell’s counsel

^{90/}Doc. [74](#), at 5.

^{91/}See doc. [77](#), at 12-13.

^{92/}See doc. [78](#), at 20.

^{93/}[241 patent; col. 2, ll. 17-28.](#)

^{94/}Doc. [87](#), at 85 (“You see, our definition says it’s provided through two opposing sides so, yes, it does go to both sides.”).

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argued that “we’re just reading the claim language[;] what it says is the line of power, the line of data has to pass from one side to the next, just how it connects. We’re not saying anything else.” But Rockwell’s interpretation reads “slipped therethrough” as “slipped therethrough without a connection break.” That is, Rockwell’s interpretation would not allow a line coming through the device to terminate into a circuit board, and then have the line begin again on the other side of the board. But, this interpretation yields a result incompatible with the idea of an I/O device, for it would not allow for efficient communication between a user and external devices. A person having skill in the art, reading this claim, would understand that the line is slipped through the device, but that it does not have to be unbroken.

Therefore the Court adopts a modified version of Rockwell’s construction and construes the term as “the data bus line and power supply line pass within the bus terminals and each line connects to opposing sides of the bus terminals.” This construction clarifies that the line actually does pass through the device, but that the line does not have to be unbroken before connecting to the other side.

IT IS SO ORDERED.

Dated: May 8, 2013

s/ James S. Gwin
JAMES S. GWIN
UNITED STATES DISTRICT JUDGE